



U-matic Videocassette Player
VP-7020
(EIA/NTSC)



SONY

The VP-7020— From the New Generation of U-matics

Sony's U-matic VTRs are recognized as one of the most efficient means of communication for various industries. Yet, there are still demands for even more efficient video communication with new application possibilities. Sony now introduces the new VP-7020 U-matic Player to meet such demands. In addition to the outstanding features of conventional U-matic players, such as high quality picture, simple remote control, picture search, and programmed operation, the VP-7020 features a selection of two kinds of optional interfaces, a 33-pin remote interface for Sony's current U-matic systems and an RS-232C interface for accurate random access and computer interface. These functions broaden video applications by adding new possibilities for programmed operation, interactive training systems, point-of-purchase and point-of-information displays, and much more. The VP-7020 is sure to be an indispensable tool for video communication systems.



HIGH QUALITY PICTURE

The VP-7020 obtains high picture quality by making the most of the U-matic format. When KSP videocassettes that have been recorded by SP (Superior Performance) U-matics, such as the VO-9600, are used, the VP-7020 can provide high quality picture playback.

SYSTEM VERSATILITY

Frame Code

The VP-7020 is capable of Frame Code operation. Frame Code is a six digit absolute address code from 000000 to 299999 and is generated on each frame of the video source by using the FCG-700 Frame Code Generator. With the aid of the BKU-701 Computer Interface Board, it can be controlled from an external computer or the RX-707 Auto Search Control Unit to make precise random access and sophisticated program operations possible.

RS-232C Interface Capability

The optional BKU-701 Computer Interface Board provides the VP-7020 with an external computer control capability through the RS-232C connector. Accurate auto search, auto repeat, and random access can be executed with this Frame Code operation system.



33-pin Parallel Remote Control Interface

When the optional BKU-702 33-pin Interface Board is installed, the VP-7020 is provided with a 33-pin remote control interface capability and can be connected to the RM-500 or RM-580 to allow basic functions of the VTR to be controlled remotely.

Real Time Counter

The real time counted by the CTL signal appears on the LED display. It provides an accurate indication of the tape running time (up to ± 99 minutes 59 seconds) unlike conventional mechanical counters. When the BKU-701 Computer Interface Board is connected and the FRAME CODE/CTL switch is set to FRAME CODE, the Frame Code appears on the LED display.

Programmed Operation

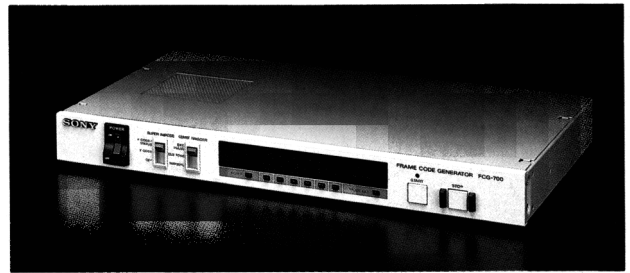
When two points are designated by the MARK IN A and MARK IN B buttons and the programmed operation switch is set to  , repeated playback between the two points is activated. The tape automatically stops at the point designated by the MARK IN A button when the switch is set to  . When the optional BKU-701 Computer Interface Board is installed, the points can be set by both CTL and Frame Code and, therefore, two segments can be memorized.

External Sync

The VP-7020 is capable of accepting an external sync for synchronization with other machines. This function allows smooth multiple VTR playback operation.

Timer Operation

With the aid of a commercially available AC on/off timer, the VP-7020 can be automatically started and stopped while unattended.



FCG-700



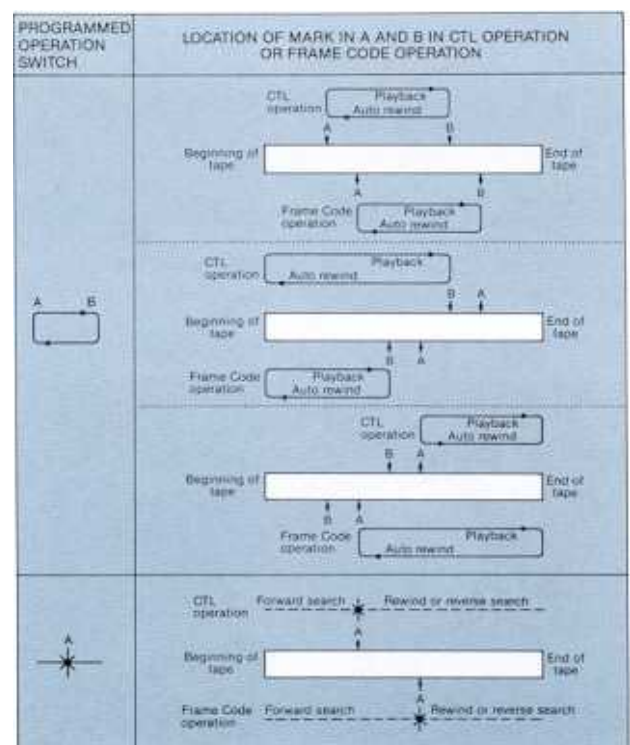
Frame Code Display



RX-707 and RS-232C Interface



Real Time Display





RM-770

USER-FRIENDLY FUNCTIONS

Wireless/Wired Remote Control RM-770 (optional)

The optional RM-770 Simple Remote Control Unit allows wireless remote control of the VP-7020. When the infrared receiver, which is supplied with the RM-770, is connected to the remote connector of the VP-7020, functional controls such as playback, fast forward, rewind and 5 times normal speed search in the forward and reverse directions can be controlled remotely. The RM-770 is also supplied with a flexible five meter cable which allows wired remote control of the VP-7020 as well.

Picture Search

Recognizable color pictures at 5 times normal speed in both the forward and reverse directions can be obtained in the search mode. A recognizable color picture can be monitored in this mode. Therefore, it is very useful when trying to find desired pictures. When the optional BKU-702 33-pin Interface Board is installed and the optional RM-580 Remote Control Unit is connected, STILL, $1/30$, $1/10$, $1/5$, $1/2$, 1, 2, 5, and 8 times normal speed picture search in the forward and reverse directions is possible regardless of the cassette size.

Still Picture

In the pause mode clear still pictures appear with guard band noise limited to only the upper or lower portions of the screen. As a result, the still picture is very easy to see.

DURABILITY AND RELIABILITY

Long Pause

When the tape is kept in the pause mode for more than 8 minutes, the VTR is automatically set into the "Long Pause" mode. In this mode, the tape is loosened around the head to prevent tape damage and to protect the video head.



Digital Hour Meter

Digital Hour Meter

The digital hour meter indicates on the LED counter the actual head usage time. The counter advances in 50 hour increments and it can indicate up to 9,950 hours.

Self-Diagnostics

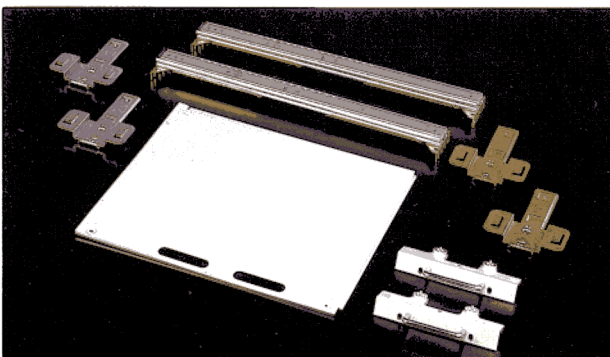
The VP-7020 features a self-diagnostic function. This function improves serviceability by indicating various errors and defects.

RF Modulator

Videocassette playback can be monitored on an ordinary TV receiver (American television standard VHF, CH3 or CH4) when the optional RFK-634 RF modulator is connected. This plug-in type unit can be easily installed in a compartment on the rear panel.

4 Unit Height/Rack Mountable

The VP-7020 is 4 units high and it can be installed in a 19 inch EIA standard rack with the optional RMM-507 Rack Mount Kit. These features are not only space-saving but make maintenance more efficient.



RMM-507

Specifications

General

Video signal system:	EIA monochrome, NTSC color
Operating temperature:	5°C ~ 40°C (41°F ~ 104°F)
Power requirements:	AC 100 ~ 120V, 50/60Hz
Operating voltage:	AC 90 ~ 132V
Power consumption:	58W (with the BKU-702, RM-580 and RFK-634)
Dimensions:	424(W) × 192(H) × 492(D)mm (16 ³ / ₄ × 7 ⁵ / ₈ × 19 ³ / ₈ ")
Weight:	16 kg (35 lb 4 oz)
Videocassette:	Sony KCA-BRS, KCA-XBR, KCS-BRS, KCS-XBR type or equivalent
Tape speed:	9.53 cm/sec.
Playback time:	60 min. (with Sony 60 min. U-matic videocassettes)
Fast forward time:	Less than 4 min. (with Sony KCA-60BRS U-matic videocassettes)
Rewind time:	Less than 4 min. (with Sony KCA-60BRS U-matic videocassettes)
Search speed:	5 times normal speed both forward and reverse directions (STILL, ± 1/30, 1/10, 1/5, 1/2, 1, 2, 5, and 8 times with the BKU-702 and RM-580)

Video

Output:	1.0 ± 0.2Vp-p
Horizontal resolution:	250 lines
S/N ratio:	More than 45dB (color)
External sync input:	2.5V (1.0 ~ 5.0V) p-p, 75 ohms, unbalanced, sync negative

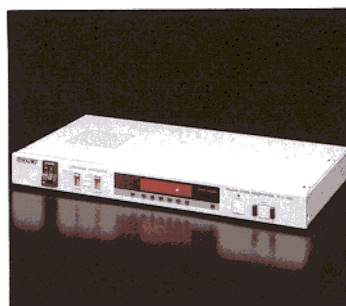
Audio

Output:	Line: -5dB (at 47k ohm load), unbalanced Monitor: -5dB (at 47k ohm load), unbalanced
S/N ratio:	More than 50dB (at 3% distortion)
Distortion:	Less than 2%
Frequency response:	50Hz ~ 15kHz
Wow and flutter:	Less than 0.18% rms

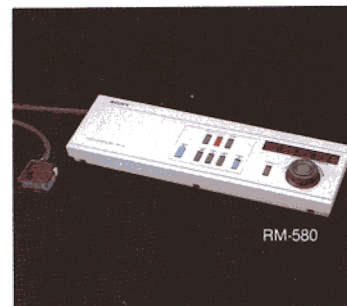
Supplied accessories: Operation manual
RF unit cover

Design and specifications subject to change without notice.

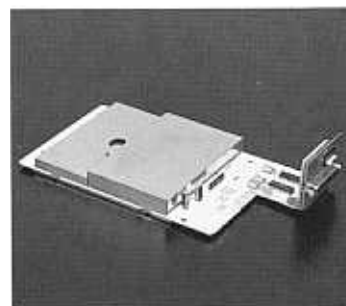
Optional accessories



Frame Code Generator
FCG-700



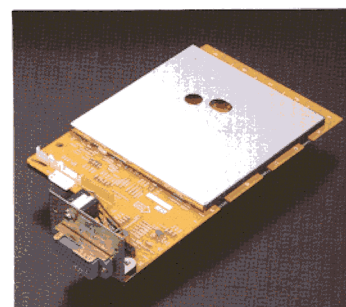
Remote Control Unit
RM-500/580



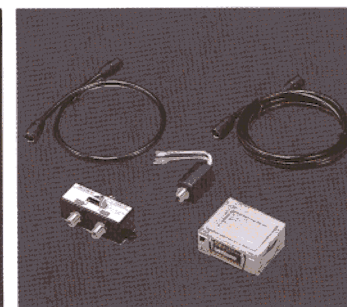
Computer Interface Board
BKU-701



Remote Control Unit
RM-770



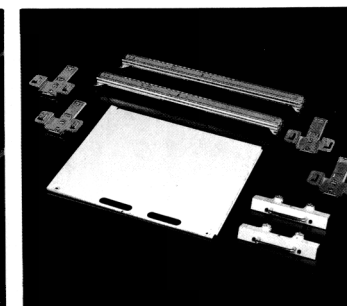
33-pin Interface Board
BKU-702



RF Kit
RFK-634



Auto Search Control Unit
RX-707



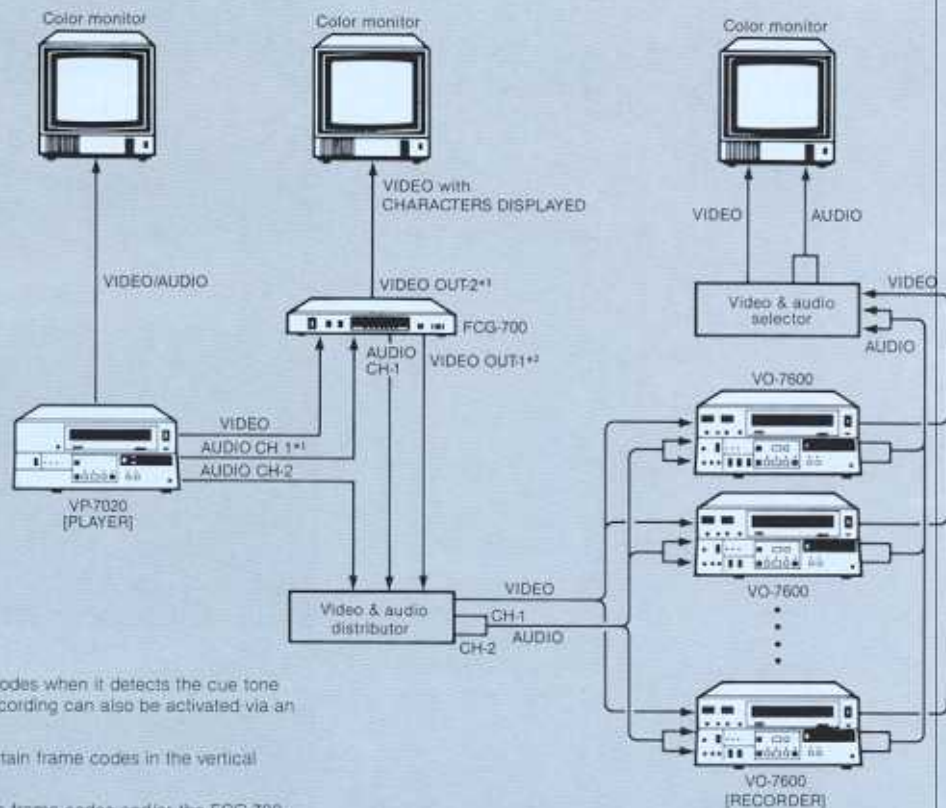
19" Rack Mount Kit
RMM-507



Auto Search Control Unit
RX-303/353

System Versatility

1. Frame Code Recording

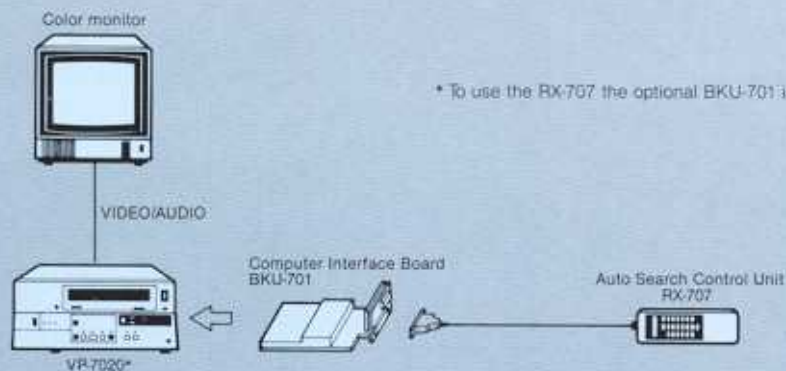


*1 The FCG-700 begins generating frame codes when it detects the cue tone recorded on audio CH-1. Frame Code recording can also be activated via an external trigger or manually.

*2 Video signals from the VIDEO OUT-1 contain frame codes in the vertical blanking intervals.

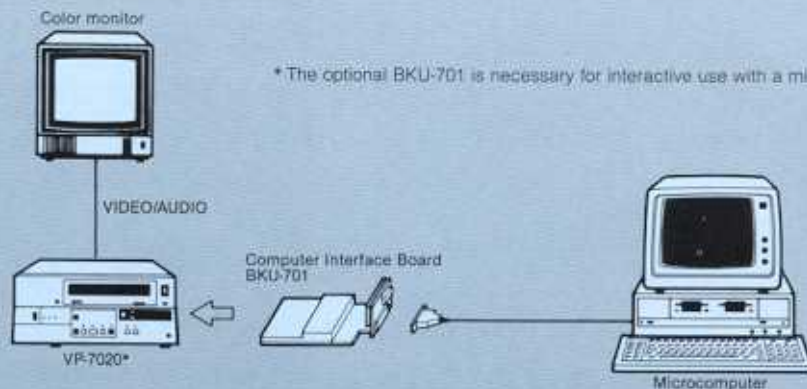
*3 Pictures from the VIDEO OUT2 can have frame codes and/or the FCG-700 status superimposed on them.

2. Random Access and Program Operation with Frame Code

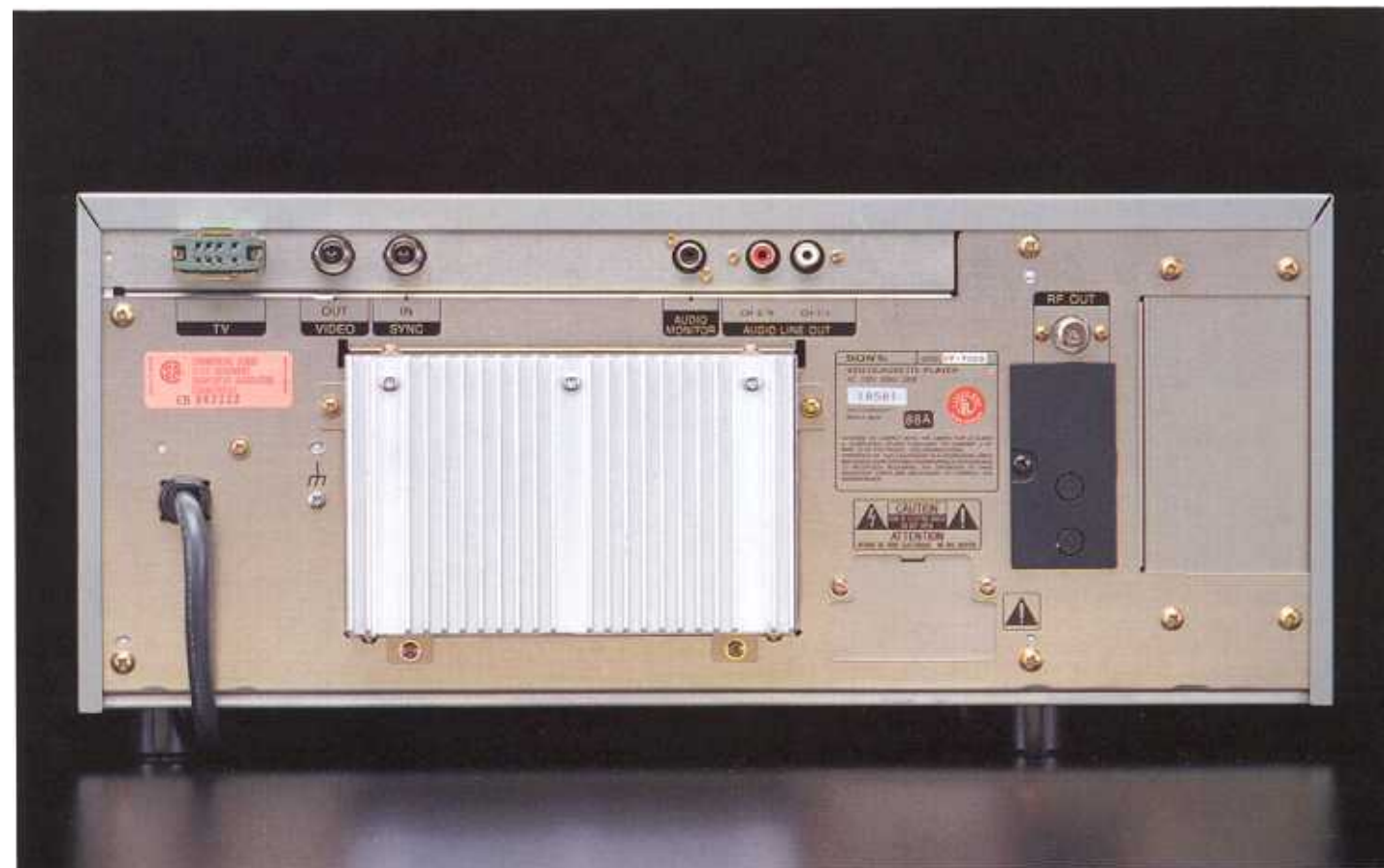


* To use the RX-707 the optional BKU-701 is necessary.

3. Interactive Video with Frame Code



* The optional BKU-701 is necessary for interactive use with a microcomputer.



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